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TRANSMITTAL OF APPEAL BRIEF (Large Entity)

Docket No.
12368 (6365/79201)

In re Application Of: **Dave Frederickson**

Serial No.
09/633,846

Filing Date
August 7, 2000

Examiner
Catherine A. Simone

Group Art Unit
1772

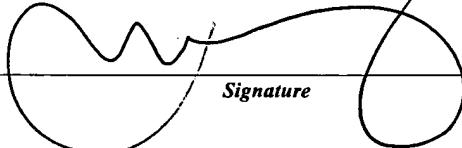
Invention: **POWDER COATED STRAP AND METHOD FOR MAKING SAME**

TO THE COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on March 29, 2004.

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Signature

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Reg. No. 37,963

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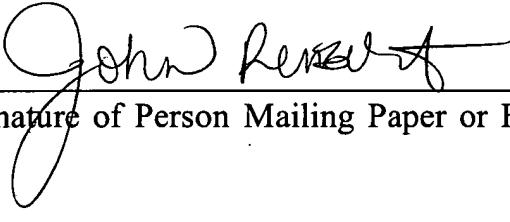
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MAY 12 2004

12368 (79201)

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Dave Frederickson

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Title: POWDER COATED STRAP AND
METHOD FOR MAKING SAME

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Examiner: Catherine A. Simone

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Art Unit: 1772

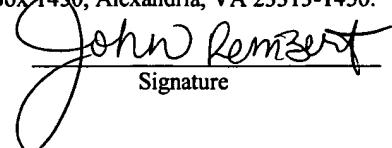
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APPLICANT'S BRIEF ON APPEAL UNDER 37 C.F.R. §1.192

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A P P E A L B R I E F

REAL PARTY IN INTEREST

Illinois Tool Works Inc., the Assignee, is the real party in interest

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF CLAIMS

Claims 16 and 20-22 are pending. These claims having been finally rejected are now on appeal.

Claims 1-15 and 26-49 were previously withdrawn and claims 17-19 and 23-25 were previously cancelled. No other claims are pending or have been withdrawn.

STATUS OF AMENDMENTS

No amendments to pending claims 16 or 20-22 were filed after the date of the final rejection.

SUMMARY OF THE INVENTION

Referring to FIG. 4b, the present invention is directed to a corrosion-resistant coated and cured strap (10). The strap is formed from an elongated metal strap base element (12). The base element has a width that defines first and second sides (16, 18) and a thickness that defines a pair of opposing edge regions (20).

A melted and cured powder coating (14) is disposed on the base element. The coating has a first substantially consistent thickness at the first and second sides and a second substantially consistent thickness at the edge regions. The first and second thicknesses are different from one another. The coating has a greater thickness at about the pair of opposing edge regions and about regions of the first and second sides adjacent

the pair of opposing edge regions, than on the first and second sides, to define a dog-bone profile.

The dependent claims further define that the strap first coating thickness is about 0.2 thousandths of an inch to about 5.0 thousandths of an inch, preferably about 0.6 thousandths of an inch to about 1.2 thousandths of an inch and most preferably about 0.8 thousandths of an inch.

ISSUE PRESENTED

1. Whether claims 16 and 20-22 are unpatentable under 35 U.S.C. § 103 as obvious over Lupinski et al., U.S. Patent No. 4,100,883.

GROUPING OF CLAIMS

Claims 16 and 20-22 are pending in the present application and are on appeal. All of the claims pending and on appeal stand or fall together.

ARGUMENT

I. Summary of the Prior Art Applied

Lupinski et al., U.S. Patent No. 4,100,883

Lupinski et al. is the only art applied by the Examiner in the final action. This reference is characterized by the Examiner as disclosing a corrosion-resistant coated and cured strap comprising an elongated metal strap base element having a width defining first and second sides and a thickness defining a pair of opposing edge regions. The Examiner further characterizes the strap base element as having a melted and cured powder coating on the base element, which coating has a first substantially consistent thickness at the first and second sides and a second substantially consistent thickness at the edge regions. The Examiner states further that the first and second thicknesses are different from one another, and that the coating has a greater thickness at about the pair of opposing edge regions and about regions of the first and second sides adjacent the pair

of opposing edge regions than on the first and second sides. For support of this description, the Examiner references to Figure 4 of the Lupinski patent.

II. The Present Invention - Claim 16 and its Dependent Claims

The invention as defined by claim 16 is directed to a corrosion-resistant coated and cured strap. The strap is formed from an elongated metal strap base element that has a width that defines first and second sides and a thickness that defines a pair of opposing edge regions.

The powder coating is melted and cured on the base element. The coating has a first substantially consistent thickness at the first and second sides and a second substantially consistent thickness at the edge regions. The first and second thicknesses are different from one another such that the second thickness (at the edges) is greater than the first thickness (on the sides). This provides for the coating to define a dog-bone profile. As further defined by the dependent claims (claims 20-22), the coating thickness (at the sides) is about 0.2 thousandths of an inch (0.2 mils) to about 5.0 mils and most preferably about 0.8 mils.

The strap has been shown to exhibit corrosion resistance characteristics in various simulated environments that are far superior to commercially available liquid coated strap. In some cases, these characteristics are more than ten-fold, and even twenty-fold increases over the known products.

When the coating is applied to the first side of the bare strap, it adheres to that side of the material and wraps around to also extend around a portion of the second (opposite) side of the material. Likewise, when the coating is applied to the second side of the material, while the powder adheres to the second side, it also wraps around to the first side of the material. With the coating extending around the edges of both sides of the material, there is a slight increase or buildup at the edges creating the over-coating or dog-bone profile or effect.

III. The Examiner's Rejection

The rejection discussed in this section is that rejection set forth in the Action mailed July 14, 2003, as reiterated in the final action of December 5, 2003.

Claims 16 and 20-22 have been finally rejected under 35 U.S.C. 103(a) as unpatentable over Lupinski. The Examiner has taken the position that Lupinski, as described above, discloses a corrosion-resistant coated and cured strap having an elongated metal strap base element having a width defining first and second sides and a thickness defining a pair of opposing edge regions. The strap has a melted and cured powder coating having a first substantially consistent thickness at the first and second sides and a second substantially consistent thickness at the edge regions. The Examiner states further that the first and second thicknesses are different from one another, and that the coating has a greater thickness at about the pair of opposing edge regions and about regions of the first and second sides adjacent the pair of opposing edge regions than on the first and second sides, again referring to Figure 4. The Examiner concedes, however, that Lupinski fails to disclose the coating thickness varying so as to define a dog-bone profile.

In the rejection, the Examiner asserts that generally a change in shape of the coating thickness would be an unpatentable modification, but that under some circumstances changes such as shape may impart patentability to a product if the particular shape claimed produces a new and unexpected result which is different in kind and not merely in degree from the results of the prior art. In re Dailey et al., 149 USPQ 47 (CCPA 1966). Nevertheless, the Examiner rejected the claims, concluding that it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to change the shape of the coating thickness in Lupinski to define a dog-bone profile, and that one skilled in the art would have been motivated to do so in order to form a coated metal strap, since it has been held that a change in form or shape of the coating thickness would be an unpatentable modification absence of showing unexpected results. As to claims 20-22, the Examiner has grouped the rejection of these claims with the rejection of claim 16.

IV. The Lupinski Patent Expressly Teaches Away From the Claimed Invention

The Patent Office has the burden to establish a *prima facie* case of obviousness of the claimed subject matter as a whole within the meaning of § 103. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988), citing, In re Piasecki, 745 F.2d 1468, 1471-72, 223 U.S.P.Q. 785, 787-88 (Fed. Cir. 1984). Further, the burden is only satisfied by illustrating a teaching in the prior art or generally available knowledge that would lead one skilled in the art to combine references. In re Lalu, 747 F.2d 703, 705, 223 U.S.P.Q. 1257, 1258 (Fed. Cir. 1984). Generally, a reference that appears to teach away from the claimed invention cannot serve to establish a *prima facie* case of obviousness. In re Gurley, 27 F.3d 551, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994). Even though the nature of the teaching is relevant and must be viewed in substance, the fact that it teaches away is a significant factor to be taken into consideration in determining the non-obviousness of the claimed invention. Id.

Applicant submits that the prior art Lupinski reference expressly teaches away from the claimed invention and that, in substance, it would not lead one to "make" the claimed invention. That is, Applicant disagrees with the Examiner's contention that one skilled in the art would have been motivated to change the shape of the coating thickness in Lupinski to define a dog-bone profile to form a coated metal strap.

Rather than being motivated by Lupinski to "change the shape" to a dog-bone profile, Applicant submits that one would have been disinclined to alter the shape to that of the claimed profile. A careful reading of Lupinski shows that such a shape was undesirable and that one of the reasons for the method of Lupinski was to provide a substantially *uniform* coating thickness all around the base member.

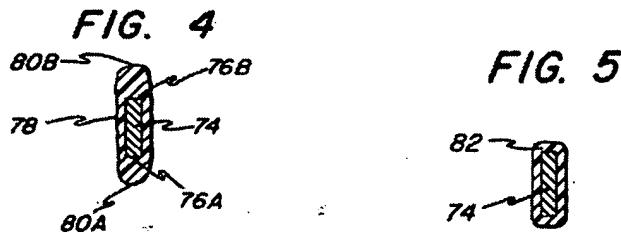
Referring to Lupinski, col. 6, lines 7-23 provide that:

In coating wire having an elongate cross sectional shape, e.g. cross-sectional length to cross-sectional width ratios of 2:1 or more, it is generally found that, when all the electrodes in array 22 are connected to the high voltage DC generator, *the resulting coatings are nonuniform about the wire perimeter, i.e., the opposite narrow ends of the wire are found to have relatively larger coating thickness. FIG. 4 illustrates such an undesirable result for rectangular wire 74 coated in a coating operation wherein opposite narrow ends 76A and 76B are aligned with diametrically opposed electrodes 22A and 22B respectively, and all the electrodes in array 22 are connected through their corresponding switches to the high voltage D.C. generator. As shown in FIG. 4, the coating 78*

includes coating regions 80A and 80B of relatively larger thickness at narrow ends 76A and 76B of the rectangular wire.

Lupinski, U.S. Patent No. 4,100,883, col. 6, line 7-23 (emphasis added).

Reproduced below is FIG. 4 from Lupinski which, in Applicant's view is more akin to the claimed dog-bone profile, and which, according to Lupinski, is an *undesirable* coating configuration.



In viewing this figure, along with the text of col. 6, lines 7-23, and comparing this to FIG. 5, also reproduced above, it is clear that Lupinski teaches away from a coating profile in which the coating is thicker at the ends than at the center portion. And, although Lupinski does not show a "traditional" dog-bone profile, it is submitted that the configuration of FIG. 4 is akin to such and that the teaching of Lupinski *away* from this profile is equally well applicable and analogous to teaching away from the claimed dog-bone profile. It is Applicant's position that in the present instance, the general rule regarding the inapplicability of a teaching away reference to establish a prima facie case of obviousness applies. That is, in the instant case, because Lipinski teaches away from a dog-bone profile (or anything other than a constant thickness coating), it simply cannot be used to establish a prima facie case of obviousness.

Moreover, the Examiner has failed to cite any reference whatsoever that teaches the uses and advantages of a dog-bone profile. It would be one thing had the Examiner set forth any such configuration with even the slightest of suggestions or teachings to make the combination, but the Examiner has failed to make even this showing. As such, it is Applicant's position that the Examiner has completely failed to meet the burden for establishing a prima facie showing of obviousness.

CONCLUSION

In conclusion, Applicant submits that the claims 16 and 20-22 as presently pending would not have been obvious to one of skill in the art, over the single cited reference, because the reference fails to teach, and more specifically, teaches away from the claimed invention. To this end, Applicant respectfully requests that the Board reverse the decision of the Examiner finally rejecting Claims 16 and 20-22.

Respectfully submitted,

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Dated: May 12, 2004

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APPENDIX - CLAIMS ON APPEAL

16. A corrosion-resistant coated and cured strap comprising:
 - an elongated metal strap base element, the metal strap base element having a width defining first and second sides and a thickness defining a pair of opposing edge regions; and
 - a melted and cured powder coating on the base element, the coating having a first substantially consistent thickness at the first and second sides and a second substantially consistent thickness at the edge regions, the first and second thicknesses being different from one another, wherein the coating has a greater thickness at about the pair of opposing edge regions and about regions of the first and second sides adjacent the pair of opposing edge regions than on the first and second sides to define a dog-bone profile.
20. The corrosion-resistant strap in accordance with claim 16 wherein the first thickness of the coating is about 0.2 thousandths of an inch to about 5.0 thousandths of an inch.
21. The corrosion-resistant strap in accordance with claim 20 wherein the first thickness of the coating is about 0.6 thousandths of an inch to about 1.2 thousandths of an inch.
22. The corrosion-resistant strap in accordance with claim 21 wherein the first thickness of the coating is about 0.8 thousandths of an inch.

TABLE OF AUTHORITIES

In re Dailey et al., 149 USPQ 47 (CCPA 1966).

In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

In re Piasecki, 745 F.2d 1468, 1471-72, 223 U.S.P.Q. 785, 787-88 (Fed. Cir. 1984).

In re Lalu, 747 F.2d 703, 705, 223 U.S.P.Q. 1257, 1258 (Fed. Cir. 1984).

In re Gurley, 27 F.3d 551, 31 USPQ2d 11390, 1132 (Fed. Cir. 1994).